REMARKS/ARGUMENTS

Claims 1, 11, 13, 15-17 and 24-25 are active. Claims 7-10 have been withdrawn from consideration. The limitations of claims 3-5 have been merged into independent claim 1. New claim 25 finds support at least in Table 1 (entry 3) on page 26 and on page 27, lines 4-5 of the specification. Accordingly, the Applicants do not believe that any new matter has been introduced. The Applicants thank Examiners Roe and King for the courteous and helpful discussion of December 21, 2007. It was suggested that the Applicants provide additional experimental data showing the "criticality" of selecting oxygen and alloying metal content within the ranges required by the invention in order to distinguish from Bitter which was indicated as teaching overlapping content ranges.

Restriction/Election

The Applicants previously elected Group I (products) with traverse. Group II, claims 7-10 (process) have been withdrawn from consideration. The requirement has been made FINAL. The Applicants respectfully request that the claims of the nonelected group which depend from or otherwise include all the limitations of an allowed elected claim, be rejoined upon an indication of allowability for the elected claim, see MPEP 821.04.

Rejections—35 U.S.C. §103

Claims 1-5, 11, 13, 15-17 and 19-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bitter et al., GB 2,190,100. Bitter does not disclose or suggest titanium alloys that have been produced by the solution treatment required by claims 1 and 15, nor provide a reasonable expectation of success that these steps would produce a β single phase titanium alloy stable at room temperature having the functional properties now required by independent claim 1.

As shown by the attached Declaration, titanium alloys that do not conform to the compositional limitations of claim 1 do not have the superior functional properties of the invention. For example, comparative specimens C1 and C3 show the effects of reducing the oxygen content below the range 0.6% to 3.0% required by claim 1. As shown, specimens C1 and C3 have significantly less tensile strength and elastic deformability than specimens 1 to 6 which correspond to the invention.

Similarly, use of an alloying element content outside of the 3% to 11% range required by claim 1, also results in loss of the superior functional properties of the β single phase titanium alloy of the invention. Specimens C2 and C4 have an alloying content outside of that of the invention and do not have the Young's modulus (a measure of stiffness of an alloy) or elastic deformability of the β single phase titanium alloy of the invention.

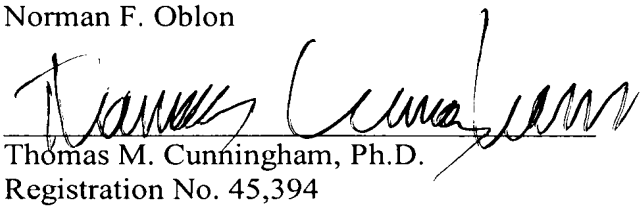
The prior art does not suggest or provide a reasonable expectation of success for the β single phase titanium alloys of the invention having the functional properties required by claim 1 and which are exemplified in the attached Declaration. Assuming *arguendo* that Bitter suggests β single phase titanium alloys having overlapping compositional content (i.e., oxygen content and alloying metal content in M_{eq}), it does not suggest or provide a reasonable expectation of success that the particular oxygen content and alloying metal content required by claim 1 would provide a β single phase titanium alloy having the physical properties required by claim 1. Accordingly, the Applicants respectfully request that this rejection be withdrawn.

Conclusion

This application presents allowable subject matter and the Examiner is respectfully requested to pass it to issue. The Examiner is encouraged to contact the undersigned should a further discussion of the issues or claims be helpful.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon



Thomas M. Cunningham, Ph.D.
Registration No. 45,394

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 03/06)